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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,758	01/11/2005	Hitoshi Iochi	L9289.04195	2646

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EXAMINER	
FOUD, HICHAM B	

ART UNIT	PAPER NUMBER
2467	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/520,758	IOCHI ET AL.	
	Examiner	Art Unit	
	HICHAM B. FOUD	2467	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 July 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *14-24 and 31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *14-24* is/are rejected.

7)☒ Claim(s) *31* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/26/2010 has been entered.

Response to Amendment

2. The amendment filed on 07/26/2010 has been entered and considered.

Claims 14-24 and 31 are pending in this application.

Claims 1-13 and 25-30 have been canceled.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 14, 16, 17 and 19-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karjalainen (US 2002/0176438) in view of Scott (US 5,832,022).

For claim 14, Karjalainen discloses a radio base station apparatus that communicates with a communication terminal, the radio base station apparatus comprising an encoder that encodes a plurality of types of control information for a single communication terminal for use in uplink packet transmission (see Figure 4 element 402A: encoder. The plurality types of control information are multiplexed by element 408; MUX which multiplexed the control information 400A) with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder is different than spreader "claimed: which are different from spreading codes"); and a spreader that spreads the plurality of types of control information after the encoding using a single spreading code common between the plurality of types of control information (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user), wherein the symbol patterns relate to symbols prior to spreading (symbols relates to symbols prior to spreading since when decoding will get the same symbols or code and this is evidenced by the reverse process at the receiver in 422A in Fig.4) and are patterns in which one symbol is a minimum unit (the encoded channels (codes) or symbols are representation of bits wherein each bit is a minimum unit). Karjalainen discloses all the subject matter with the exception of explicitly disclosing that the plurality of symbol patterns are stored in a table and encodes the plurality of types of information using symbol patterns that differ

between the types of information. However, Scott discloses an encoder that has a table storing a plurality symbol patterns and encodes the plurality of types of information using symbol patterns that differ between the types of information (see col. 26 lines 14-19; encoder uses a table to store codes/symbols and encoding based on the different types of information). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teaching of Scott into the system of Karjalainen for the purpose of encoding the data prior to spreading in order to add another layer of protection to the data to have a robust transmission.

Claims 16 and 22 are rejected for same reasons as claim 14.

For claim 17, Karjalainen discloses a radio network controller apparatus comprising: a spread code and symbol pattern assigner configured to assign a spreading code and symbol patterns, which are different from spreading codes, in a plurality of combinations to a plurality of types of control information for a plurality of communication terminals for use in uplink packet transmission, said plurality of types of control information being provided per communication terminal (see Figure 3; "RNC and UE" and/or see [0029] lines 13-25 an/or see Figure 3; RNC and/or see [0029] lines 13-25 and/or see Figure 4: the combination of elements "402A and 406A": encoder with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder is different than spreader "claimed:

which are different from spreading codes"); and a sender that sends the assigned spreading code and symbol patterns to a radio base station apparatus (see Figure 3; RNC "claimed sender" communicates to node B "claimed base station"), wherein the assigner assigns a single spreading code (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user) and encoding the plurality of types control information for a single communication terminal (see Figure 4 402A: encoder) with symbol patterns (see [0033] lines 22-25; every channel is subject to different channel coding), wherein the symbol patterns relate to symbols prior to spreading (symbols relates to symbols prior to spreading since when decoding will get the same symbols or code and evidenced by the reverse process in 422A in Fig.4) and are patterns in which one symbol is a minimum unit (the encoded channels (code) or symbols are representation of bits). Karjalainen discloses all the subject matter with the exception of explicitly disclosing that the plurality of symbol patterns are stored in a table and encodes the plurality of types of information using symbol patterns that differ between the types of information. However, Scott discloses an encoder that has a table storing a plurality of symbol patterns and encodes the plurality of types of information using symbol patterns that differ between the types of information (see col. 26 lines 14-19; encoder uses a table to store codes/symbols and encoding based on the different types of information). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teaching of Scott into the system of Karjalainen for the purpose of encoding the data prior to spreading in order to add another layer of protection to the data to have a robust transmission.

For claim 20, Karjalainen discloses communication terminal apparatus comprising: a despreader that despreads a signal from a radio base station apparatus using a single spreading code provided for a single communication terminal apparatus (see Figure 4 element 428; see [0034] lines 12-15 and [0021] lines 11-12; selection of a single spreading code per user); a decoder that extracts a plurality of types of control information using symbol patterns, which are different from spreading codes, provided from the radio base station apparatus, said plurality of types of control information for the communication terminal apparatus being multiplexed in the signal using the plurality of symbol patterns (see Figure 4 element 422A; Decoder. The plurality types of control information are deMUX by element 424 which have been multiplexed "element 408", the control information "400A" was encoded/decoded with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder/decoder is different than spreader/despreader "claimed: which are different from spreading codes"); and a transmission signal former that forms uplink transmission packets based on the plurality of types of control information extracted by the decoder (the transmission signal former that uses the received control information for uplink transmission is inherent in the communication terminal for the purpose of communication to the base station), wherein the decoder selects the symbol patterns provided from the radio base station apparatus, from a plurality of mutually uncorrelated

symbol patterns, which are different from spreading codes (see Figure 4 element 422A; Decoder. The plurality types of control information are deMUX by element 424 which have been multiplexed "element 408", the control information "400A" was encoded/decoded with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder/decoder is different than spreader/despreader "claimed: which are different from spreading codes"), and wherein the decoding after the despreading (see Fig. 4; decoder "422" and despreader "428"), wherein the symbol patterns relate to symbols prior to spreading (symbols relates to symbols prior to spreading since when decoding will get the same symbols or code and evidenced by the reverse process in 422A in Fig.4) and are patterns in which one symbol is a minimum unit (the encoded channels (code) or symbols are representation of bits). Karjalainen discloses all the subject matter with the exception of wherein the decoder selects the symbol patterns from a plurality of symbol patterns and decodes the plurality of types of information using the selected symbol patterns. However, Scott discloses at the transmitter side an encoder that has a table storing a plurality of symbol patterns (codes) and encodes the plurality of types of information using symbol patterns that differ between the types of information (see col. 26 lines 14-19), which requires the decoding at the receiving side in the same way (reverse process to obtain the same data prior to encoding). Thus, it would have been

obvious to the one skill in the art at the time of the invention to use the decoding/encoding method of Scott into the system of Karjalainen for the purpose of decoding/encoding the data prior to despreading/spreading in order to add another layer of protection to the data to have a robust transmission.

For claims 19 and 21, Karjalainen further discloses a communication terminal apparatus, wherein the plurality of types of control information comprises at least one of a packet transmission rate, a coding rate, a spreading factor, the number of spreading codes, a modulation scheme, a packet data size, a transmit power, and information about retransmission (see [0031]).

Claim 23 is rejected for same reasons as claim 20.

For claim 24, Karjalainen discloses a radio communication system that transmits a plurality of types of control information for a single communication terminal for use in uplink packet transmission, the radio communication system comprising a radio network controller apparatus, a radio base station apparatus, and a mobile station apparatus (see Figure 3), wherein: the radio network controller apparatus designates a plurality of symbol patterns, which are different from spreading codes (see Figure 4 element 402A: encoder. The plurality types of control information are multiplexed by element 408; MUX which multiplexed the control information 400A) with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX)

but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder/decoder is different than spreader/despreader "claimed: which are different from spreading codes"), and a spreading code common to the plurality of types of control information for the radio base station apparatus and the mobile station apparatus (see Figure 3; RNC and see [0029] lines 13-25 and [0021] lines 11-12; selection of a single spreading code per user); the radio base station apparatus transmits the plurality of types of control information to a single mobile station apparatus using the plurality of symbol patterns (see Figure 4 element 402A; encoder) and the spreading code (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user); and the mobile station apparatus extracts the plurality of types of control information using the plurality of symbol patterns and the spreading code (see Figure 4 elements 428 and 422A; despreader, and decoder and see [0034] lines 12-15); the radio network controller apparatus commands the radio base station apparatus and the mobile station apparatus to use the plurality of mutually uncorrelated symbol patters which are different from spreading codes (see Figure 3; RNC, node B and UE and/or see Figure 4 element 402A: encoder. The plurality types of control information are multiplexed by element 408; MUX which multiplexed the control information 400A) with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder/decoder

is different than spreader/despreader "claimed: which are different from spreading codes") wherein the symbol patterns relate to symbols prior to spreading (symbols relates to symbols prior to spreading since when decoding will get the same symbols or code and evidenced by the reverse process in 422A in Fig.4) and are patterns in which one symbol is a minimum unit (the encoded channels (code) or symbols are representation of bits). Karjalainen discloses all the subject matter with the exception of explicitly disclosing that the plurality of symbol patterns are stored in a table and encodes the plurality of types of information using symbol patterns that differ between the types of information. However, Scott discloses an encoder that has a table storing a plurality of symbol patterns and encodes the plurality of types of information using symbol patterns that differ between the types of information (see col. 26 lines 14-19; encoder uses a table to store codes/symbols and encoding based on the different types of information). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teaching of Scott into the system of Karjalainen for the purpose of encoding the data prior to spreading in order to add another layer of protection to the data to have a robust transmission.

4. Claims 15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karjalainen in view of Scott and further in view of Atarashi et al (US 7,298,721).

For claim 15, Karjalainen discloses a radio base station apparatus that communicates with a communication terminal, the radio base station apparatus comprising: a first transmission signal former that spreads transmission data for a first communication terminal using a first spreading code assigned to said first

communication terminal and forms a first dedicated channel signal for said first communication terminal (see Figure 4 element 406B and [0021] lines 11-12; selection of a single spreading code per user), and that spreads transmission data for a second communication terminal using a second spreading code assigned to said second communication terminal and forms a second dedicated channel signal for said second communication terminal (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user); and a second transmission signal former that multiplexes a plurality of types of first control information for the first communication terminal and a plurality of types of second control information for the second communication terminal (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user), and an encoder that encodes the plurality of types of first control information and the plurality of types of second control information (see Figure 4 elements 402A; encoder) and that forms transmission signals for the first and second communication terminals (see Figure 4; the output of element 408) with mutually uncorrelated symbol patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder is different from the spreader "claimed: which are different from spreading codes"), wherein the symbol patterns relate to symbols prior to spreading (symbols relates to symbols prior to spreading since when decoding will get the same symbols or code and this is evidenced by the reverse

process at the receiver in 422A in Fig.4) and are patterns in which one symbol is a minimum unit (the encoded channels (codes) or symbols are representation of bits wherein each bit is a minimum unit). Karjalainen discloses all the subject matter with the exception of explicitly disclosing that the plurality of symbol patterns are stored in a table and encodes the plurality of types of information using symbol patterns that differ between the types of information. However, Scott discloses an encoder that has a table storing a plurality of symbol patterns and encodes the plurality of types of information using symbol patterns that differ between the types of information (see col. 26 lines 14-19; encoder uses a table to store codes/symbols and encoding based on the different types of information). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the teaching of Scott into the system of Karjalainen for the purpose of encoding the data prior to spreading in order to add another layer of protection to the data to have a robust transmission. Karjalainen in view of Scott discloses all the subject matter with the exception of using for the control information for both communication terminals a third spreading code, which is provided for common use by the first and second communication terminals. However, Atarashi et al discloses the use of one specific spreading code for common control channel for a plurality of users (see Figure 44 and column 22 lines 9-14). Thus, it would have been obvious to the one skill in the art at the time of the invention to use the common control channel as taught by the invention of Atarashi et al into the invention of Karjalainen in view of Scott for the purpose of avoiding over-consumption of spreading codes.

For claim 18, Karjalainen in view of Scott and further in view of Atarashi discloses all the subject matter with the exception of: a first transmit power controller that controls transmit power of dedicated channel signals on a per dedicated channel basis; and a second transmit power controller that controls a transmit power of the plurality of types of first control information and a transmit power of the plurality of types of second control information, according to a transmit power of a dedicated channel for the first communication terminal and a transmit power of a dedicated channel for the second communication terminal, respectively. However, an official notice is taken for the use of different transmission power controller for the dedicated channel and control channel or the use of only one controller depending on the design preference. Thus, it would have been obvious to the one skill in the art at the time of the invention to uses different transmission power for the dedicated channel and the control channel for the purpose of differentiating between the types of the user data transmitted.

Allowable Subject Matter

5. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

7. Applicant's arguments filed have been fully considered but they are not persuasive.

The applicant is arguing that Scott spreads the signals instead of encoding it (see Remarks). However, the examiner disagrees because Scott clearly teaches an encoder that encodes the signal (see col.26 lines 14-15; means for encoding) which is clearly the same claimed limitation. Moreover, the applicant is arguing that the added limitation overcomes the prior art. However, the examiner disagrees because the added limitation only states "which are different from spreading codes", in attempt to differentiate from the prior art in record. However, the added limitation is very broad and if a claim is subject to more than one interpretation, at least one of which would render the claim unpatentable over the prior art, the examiner should reject the claim over the prior art based on the interpretation of the claim that renders the prior art applicable. Ex parte Ionescu, 222 USPQ 537 (Bd. Pat. App. & Inter. 1984). In re Wilson, 424 F.2d 1382, 165 USPQ 494 (CCPA 1970). Therefore, claims are given their broadest reasonable interpretation The Federal Circuit's *en banc* decision in *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) because although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Thus, Karjalainen clearly discloses an encoder that encodes a plurality of types of control information for a single communication terminal for use in uplink packet transmission ((see Figure 4 element 402A: encoder. The plurality types of control information are multiplexed by element 408; MUX which multiplexed the control information 400A) with symbol patterns (see [0033] lines 22-25; every channel is subject to different channel coding (code = symbol patterns)) with mutually uncorrelated symbol

patterns which are different from spreading codes (see [0033] lines 22-25; every channel is subject to different channel coding; so codes are mapped to symbol patterns and are mutually uncorrelated because the channels are multiplexed (see Fig.4 MUX) but still separable and this is evidenced by the reverse process at the receiver in 422A in Fig.4 and encoder is different from the spreader "claimed: which are different from spreading codes") and a spreader that spreads the plurality of types of control information after the encoding using a single spreading code common between the plurality of types of control information (see Figure 4 element 406A and [0021] lines 11-12; selection of a single spreading code per user). Moreover, based on the specification of the instant application [0128] of the publication, the "mutually uncorrelated" is defined as ***multiplexed but still separable.*** Therefore, Karjalainen clearly teaches all the argued claimed limitations. Finally, the rejection is based on 103, so in response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Thus, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

9. Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made. Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HICHAM B. FOUD whose telephone number is (571)270-1463. The examiner can normally be reached on Monday - Friday 10-6 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pankaj, Kumar can be reached on 571-272-3011. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. B. F./
Examiner, Art Unit 2467

/Pankaj Kumar/

Supervisory Patent Examiner, Art Unit 2467